	Name:	Date:
	Topic/Objective:	Class/Period:

Solving Quadratics using the square root method Day 2

Questions/Main Ideas:	Notes:

Vocabulary:

Quadratic Equations
Roots; Solutions
Parabola

REVIEW

What is a Quadratic Equation?

A Trinomial with a degree of 2

What does a Quadratics Equation look like?

U shaped graph

What is the name of the answers when solving a Quadratic Equation?

Solutions or Roots

The standard form of a Quadratic Equation is $ax^2 + bx + c$

What are the two methods of solving Quadratic Equations learned so far?

Factoring and square root

LET'S BEGIN!

Solve by using <u>the square root</u>

$x^2 + 7 = 11$

$x^2 + 7 = 11$
$-7 \quad -7$
$\sqrt{x^2} = \sqrt{4}$
$x = \pm 2$

$n^2 = 64$

$\sqrt{n^2} = \sqrt{64}$
$n = \pm 8$

Still need to get $(\ )^2$ by itself.

$2x^2 = 8$

$\frac{2x^2}{2} = \frac{8}{2}$

$\sqrt{x^2} = \sqrt{4}$

$x = \pm 2$

$m^2 - 10 = 20$

$+10 \quad +10$

$\sqrt{m^2} = \sqrt{30}$

$m = \pm 5.47$

$6(x-4)^2 = 42$

$\frac{6(x-4)^2}{6} = \frac{42}{6}$

$\sqrt{(x-4)^2} = \sqrt{7}$

$x - 4 = \pm\sqrt{7}$

$x = 4 \pm \sqrt{7}$

$x = 6.65$ and $x = 1.35$

$3(x+5)^2 = 24$

$\frac{3(x+5)^2}{3} = \frac{24}{3}$

$\sqrt{(x+5)^2} = \sqrt{8}$

$x + 5 = \pm\sqrt{8}$

$x = -5 \pm \sqrt{8}$

$x = -2.17, -7.82$

$5(a-2)^2 = 70$

$\frac{5(a-2)^2}{5} = \frac{70}{5}$

$\sqrt{(a-2)^2} = \sqrt{14}$

$a - 2 = \pm\sqrt{14}$

$a = 2 \pm \sqrt{14}$

$a = 5.74$

$a = -1.74$

$7(x-3)^2 = 35$

$\frac{7(x-3)^2}{7} = \frac{35}{7}$

$\sqrt{(x-3)^2} = \sqrt{5}$

$x - 3 = \pm\sqrt{5}$

$x = 3 \pm \sqrt{5}$

$x = 5.23$ and $.763$